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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,359	03/16/2001	Taeyoung Yoon	49662 [72021]	7721

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EXAMINER	
TRUONG, TAMTHOM NGO	
ART UNIT	**PAPER NUMBER**
1624	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/811,359	YOON ET AL.	
	Examiner	Art Unit	
	Tamthom N. Truong	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-22,24-27,30,35 and 39-67* is/are pending in the application.

4a) Of the above claim(s) *17-22 and 39-67* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-10,14,15,27 and 30* is/are rejected.

7)☒ Claim(s) *11-13,16,24-26 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

8-00

FINAL ACTION

Applicant's amendment of 4-4-05 has been fully considered. Applicant's amended claims have overcome the previous rejection of 112/2nd paragraph by listing possible substituents for optionally substituted moieties. Also, the provisional double patenting has been rendered moot by the amended claims 1 and 3. However, the amended claims have raised the following new ground(s) of rejection.

Claims 2, 23, 28, 29, 31-34, 36-38 and 68 have been cancelled.

Claims 17-22 and 39-67 are withdrawn.

Claims 1, 3-16, 24-27, 30 and 35 are considered herein.

Claim Rejections - 35 USC § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 3-8, 27 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

a. Claim 3 recites variable "Z" which does not bear a relationship to the claimed formula.

b. Claims 4-8 are rejected as being dependent on claim 3, and carrying over a variable that has no relationship with the pyrimidyl ring.

c. Claim 27 recites the limitation of "a stress-related disorder" which is a broad limitation, and it also recites the limitations of "an anxiety disorder", or "an eating disorder". Besides, it is unclear if "eating disorder" means bulimia, anorexia, or obesity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

2. Claims 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by **Juby et. al.** (J. Med. Chem., 1979, Vol. 22, No. 3, pp. 263-269). On page 266, Juby et. al. disclose several pyrimidyl compounds (see Table III, compounds # 90-93 and 96). Said compound reads on the compound recited in claims 3 and 5 when the instantly claimed formula I has the following substituents:

i. One of R_1 and R_3 is hydrogen while the other is C_1-alkoxy;

ii. R_2 is XR_A;

iii. X is –C(=O)O-;

iv. R_A is hydrogen or alkyl.

v. Ar is a phenyl substituted with R_C , which is an alkoxy.

3. Claims 3, 5, 7 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by **Minn et. al.** (WO 92/05159). On page 29, Minn et. al. disclose two pyrimidyl compounds (see compounds in Beispiel 6 & 7). Said compound reads on the compound recited in the above claims when the instantly claimed formula I has the following substituents:

i. One of R_1 and R_3 is C_1-alkoxy while the other is –O-(C_2-alkynyl);

ii. R_2 is XR_A;

iii. X is –O-;

iv. R_A is alkyl.

v. Ar is a phenyl substituted with R_C , which is a cyano.

4. Claims 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by **Hopworth et. al.** (US 3,592,895). On column 24, Hopworth et. al. disclose a pyrimidyl compound (see the compound in Example 47). Said compound reads on the compound recited in the above claims when the instantly claimed formula I has the following substituents:

i. One of R_1 and R_3 is hydrogen while the other is alkyl.

ii. R_2 is XR_A;

iii. X is –CH_2-;

iv. R_A is hydrogen.

v. Ar is a phenyl substituted with R_C , which is a halogen.

5. Claims 3, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by **Burdeska et. al.** (US 4,493,726). On columns 15 and 16, Burdeska et. al. disclose a pyrimidyl compound

(see compound # 32). Said compound reads on the compound recited in the above claims when the instantly claimed formula I has the following substituents:

i. Both R_1 and R_3 are alkoxy.

ii. R_2 is XR_A;

iii. X is $-CH_2-$;

iv. R_A is hydrogen.

v. Ar is a phenyl substituted with R_C , which is alkyl.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3-5, 7, 9, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Minn et. al.** (WO 92/05159). On page 42, Minn et. al. disclose a pyrimidyl compound (see compound # 1.54) which is analogous to a compound of the claimed formulae having the following substituents:

i. One of R_1 and R_3 is hydrogen while the other is –O-(C_2-alkynyl). Note, in claim 1, R^1 and R^3 independently represent alkoxy which can be substituted with alkynyl. Thus, in essence, they are –O-alkynyl.

ii. R_2 is dialkylamino or XR_A;

iii. X is $-NR_B-$;

iv. R_A and R_B both can be alkyl.

v. Ar is a phenyl optionally substituted with R_C .

Minn et. al. use said compound as a fungicide.

The reference differs from the claims by not disclosing a similar compound with a substituted phenyl group equivalent to the instant *Ar as a phenyl group optionally substituted with R_C*. However, on page 1 of WO'159, the generic teaching allows the phenyl group to be substituted with R^1-R^3. Further, other species (as cited in the above 102 rejection) show that the phenyl group can be substituted, and the compound still maintains the activity as a fungicide. Therefore, there is an equivalent teaching for an *unsubstituted* and a *substituted* phenyl groups.

Therefore, at the time that the invention was made, it would have been obvious to make and use the compounds as claimed herein with a *substituted* phenyl group in view of the teaching of Minn et. al.

Claim Objection

7. Claims 11-13, 16, 24-26 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims. Claims 11-13, and 16 are drawn to species wherein R_1 and R_3 are not –O-alkynyl, and thus, are not rendered obvious by the teaching of Minn et. al. Claims 24-26 recite a compound with an *in-vitro* IC_{50} value on CRF receptor, which is not taught in any of the references. Claim 35 recites a pharmaceutical composition of compounds according to claim 1, which is not taught by Minn et. al. since the compounds of Minn et. al. are used as fungicides in agriculture.

References cited on PTO-892

Due to time constraint, many references are not discussed herein. Applicant is advised to review the attached pages of CAS printouts of abstracts that might bear relevant subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamthom N. Truong whose telephone number is 571-272-0676. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamthom N. Truong
Examiner
Art Unit 1624

6-13-05

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